

XL. *Description of a Species of Moth destructive to the Cotton Crops in India.* By W. W. SAUNDERS, Esq., F.L.S. &c.

[Read 6 June, 1842.]

I BEG leave to lay before the Entomological Society an account of a very destructive Lepidopterous insect, which has committed great ravages in the cotton plantations at Broach, in Western India. Cotton being of so great importance in a commercial point of view to our East India possessions, I thought any information relative to the insects which blight the hopes of the cultivator, would be interesting both to the Society and those concerned in the cultivation of the plant.

I am indebted to my friend Dr. Royle for permission to examine and describe this insect, he having received the specimens from Dr. Barn, Superintendent of the Government Cotton Plantations at Broach, with an account of the transformations of the insect.

The following is an extract of the letter which accompanied the specimens.—“The inclosed is an insect which was very destructive to the American cotton which was sown here (Broach), on light alluvial soil. The egg is deposited in the germen at the time of flowering, and the larva feeds upon the cotton seed until the pod is about to burst, a little previous to which time it has opened a round hole in the side of the pod for air, and at which to make an exit at its own convenience, dropping on the ground, which it penetrates about an inch, and winds a thin web in which it remains during the aurelia state. Curious enough, the cotton on the black soil was not touched by it. The native cotton is sometimes affected by it.”

The materials I have had to work upon in making this communication are not very satisfactory, the specimens being much broken and rubbed; hence the description must be only taken as the nearest approximation to the truth which I am able to give. The description of the insect, which belongs to the family *Tineidæ*, genus *Depressaria*, as far as I can gain from the specimens, is as follows, and as I can find no species of the above family described as being destructive to the cotton plant, I shall treat the species under consideration as a new one, giving it the specific appellation of *Gossypiella*.

The species is nearly allied to *D. applanata*.

*Depressaria Gossypiclla, mihi.*

Dark fuscous brown, the head and thorax somewhat lighter in colour. Anterior wings with an undefined round blackish spot on the disc a little above the centre, and a fascia of the same colour crossing the wings a little above the apex, which itself is black. Under wings of a silvery grey, darker towards the hinder margin. Legs and tarsi black-brown, with the joints light. Length 4-10 inch.

The larva in the dried state is about 4-10ths of an inch long, largest just behind the head, of a dull red colour, with the head dark brown.

In the foregoing extract from Dr. Barn's letter it is interesting to remark, that the cotton grown from American seed is attacked in preference to any other, and that the cotton plant when grown upon "black soil" remains free from injury. The former fact may be accounted for by the American cotton being of a different species to that usually grown in India, and probably offers seeds which are more suitable to the development of the larva. The latter fact, however, I cannot account for, but it is of much interest, and I trust Dr. Barn will throw some light hereafter on the subject. Where there is disease, it is natural to look for a remedy, and if any member present could suggest one in the present case, which is likely to be effectual, I should feel much obliged. The case is evidently attended with much difficulty, but could any plan be hit upon to destroy the moths before the eggs are laid, a cure might be effected, but how to manage this on a large scale I must leave to more practical Entomologists, seeing no remedy which would be within the means of the cultivator.